

Work Order ID 81723

March-16-12 3:14:56 PM

81723

Page 1

Item ID: D205-770-011

Accept

N900040100Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: Replacement Engine Mount

Start Date: 16/03/2012 Start Qty: 2.00

2

Cust Item ID:

Required Date: 23/04/2012 Req'd Qty: 2.00

2

Customer:

Reference:

Approvals: Process Plan: MLJDate: 12/03/12

Tooling:

Date:

Run Start ***NR1***

QC:

Date:

SPC (Y/N):

Date:

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr

Revision Nbr

DSI 9571

B

IIN D205-770

Rev C

100

0.00

100

DOCUMENT CONTROL

DC

Memo

0.00

Document Control

Photocopy bluefile and create labels per PPP D205-770-011 CHG004

SP/MLJ

SP/MLJ 12-4-10

110

Pick Kit

0.00

110

Packaging

Memo

0.00

Packaging

2x SP

SP.
12-04-10

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Work Order ID 81723

81723

Page 2

March-16-12 3:14:56 PM

Item ID: D205-770-011

Accept

N900040100

Setup Start *NS1*

Revision ID:

Stop *NS2*

Item Name: Replacement Engine Mount

Start Date: 16/03/2012 Start Qty: 2.00 *2*

Cust Item ID:

Required Date: 23/04/2012 Req'd Qty: 2.00 *2*

Customer:

Reference:

Approvals: Process Plan: Date: Tooling: Date:

Run Start *NR1*

QC: Date: SPC (Y/N): Date:

Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
120	QC4- 100% Inspect kits for completeness	0.00							
120									
QC	Memo	0.00							
Quality Control	***VERIFY ASSEMBLY OF TRIPOD***								
130		0.00							
130	Packaging								
Packaging	Memo	0.00							
Packaging	Identify and pack for shipping as per PPP D205-770-011								
	Location: <u>B3</u>								
	PPP Rev: <u>E</u>								
140	QC21- Final Inspection - Work Order Release	0.00							
140									
QC	Memo	0.00							
Quality Control									

12/4/12
MF
12-04-11

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

March-16-12 3:15:00 PM

Page 1

Work Order ID: 81723

81723

Parent Item: D205-770-011

D205-770-011

Parent Item Name: Replacement Engine Mount

Start Date: 16/03/2012

Required Date: 23/04/2012

Start Qty: 2.00

Required Qty: 2.00

Comments: IPP Rev:A new issue ECN1165p 08-03-31 DD verified by:EC IPP REV:B
11.12.05 PER ECN11-676 DD VERF:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	-------------	--------------	---------------	----------------	--------

MS21042-3 Purchased No

MS21042-3

USE MS21042L3

Location

Loc Qty

Loc Code

ST299

19

114597

19

MS21250-03014

Purchased

No

110

Each

14.0000

2

4x
4

MS21250-03014

BOLT

Location

Loc Qty

Loc Code

ST305

14

119902

14

D3684-043

Manufactured

No

110

Each

0.0000

1

4x
2

D3684-043

MOUNT ASSEMBLY

D3684-045

Manufactured

No

110

Each

0.0000

1

B75195 2x

D3684-045

LEG ASSEMBLY

D3692-1

Manufactured

No

110

Each

177.0000

4

B71999 5x

D3692-1

SPACER

Location

Loc Qty

Loc Code

ST061

177

51467

16

73232

61

78607

60

80364

40

Sp 12-104-10

8x

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

Page 2

March-16-12 3:15:00 PM

Work Order ID: 81723

81723

Parent Item: D205-770-011

D205-770-011

Parent Item Name: Replacement Engine Mount

Start Date: 16/03/2012

Required Date: 23/04/2012

Start Qty: 2.00

Required Qty: 2.00

AN3C12A

Purchased

No

110

Each

294.0000

AN3C12A

Bolts

** 2 4
m12/25 sp

Location

Loc Qty

Loc Code

GA

50

120449

50

ST351

244

117514

4

118112

5

118451

22

119510

1

120423

212

MS21043-3

Purchased

No

110

Each

806.0000

MS21043-3

Nut

** 2 4
1x m12/25 sp

Location

Loc Qty

Loc Code

FG

72

103691

72

GA

304

120693

304

ST301

430

118077

2

118614

378

118686

30

119758

20

D3685-041

Manufactured

No

110

Each

0.0000

D3685-041

BIPOD MOUNT ASSEMBLY

** 1 2 B72000
3x m118614
1x m12/25

D-04-10-

March-16-12 3:15:00 PM

Shop Packet Print

Page 2

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

March-16-12 3:15:00 PM

Work Order ID: 81723

81723

Parent Item: D205-770-011

D205-770-011

Parent Item Name: Replacement Engine Mount

Start Date: 16/03/2012

Required Date: 23/04/2012

Start Qty: 2.00

Required Qty: 2.00

D3686-041

Manufactured No

110

Each

2.0000

L 1 2
**

SP

B82903

D3686-041
MONOPOD ASSEMBLY

Location

Loc Qty

Loc Code

ST077

2

77303

1

78054

1

18
18

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

DART SERVICE INSTRUCTION

TO AMEND INSTALLATION INSTRUCTIONS IIN-D205-770 REV. C
AND INSTRUCTIONS FOR CONTINUED AIRWORTHINESS ICA-D205-770 REV. 2

REF. TCCA STC: SH08-8

REF. FAA STC: SR02690NY / SR02070SE

REF. EASA STC: EASA.IM.R.S.01528

1.0 PURPOSE

On D205-770-011 Replacement Engine Mount Kits at CHG 004 or later, the AN3C12A Bolts on the bottom of the D3686-041 Monopod Assembly are replaced with MS21250-03014 Bolts to prevent premature bolt failure in service. Customers with D205-770-011 Replacement Engine Mount Kits at CHG 003 or earlier are encouraged to procure the DSI 9571-011 Kit from Dart to upgrade their existing kits.

2.0 INSTALLATION

- 2.1 Temporarily suspend the weight of the engine using appropriate hoist and engine sling.
- 2.2 Unfasten qty(2) AN3C12A Bolts as shown in Figure 1 of this service instruction. Retain the D3692-1 Spacers and discard the AN3C12A Bolts and MS21043-3 Nuts.
- 2.3 Inspect the bearings for looseness in accordance with Section 5.1 of ICA-D205-770.
- 2.4 Install the MS21250-03014 Steel Tension Bolts, D3692-1 Spacers and MS21042-3 Nuts as shown in Figure 2 and ensure that the D3692-1 Spacers are correctly oriented along the face of the stud.
- 2.5 Torque bolts to 20 to 25 in-lbs (2.3 to 2.8 N-m).
- 2.6 Remove hoist and engine sling.

3.0 PARTS LIST

Qty -011	Part Number	Description
X	DSI 9571-011	BOLT SUBSTITUTION KIT
2	MS21042-3	NUT (OR MS21042L3)
2	MS21250-03014	STEEL TENSION BOLT

4.0 WEIGHT & BALANCE

This change has negligible effect on weight and balance

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER

NO. 81723 MLC

12/03/16

CANADA DEPARTMENT OF TRANSPORT AIRCRAFT CERTIFICATION BRANCH DAO # 01-O-01	
APPROVED <i>[Signature]</i> BY: <u>D. SHEPHERD (DE # 02)</u>	
DATE:	<u>11.11.28</u>
CERT. NO.:	<u>SH08-8</u>
ISSUE NO.:	<u>1</u>

B	PRODUCT IMPROVEMENT: PERMANENT CHANGE. (REF. NCR11-754)	MB	11.11.23
A	NEW ISSUE	MB	11.09.06
REV.	DESCRIPTION	BY	DATE
DESIGN	<i>[Signature]</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	<i>[Signature]</i>	DRAWING NO. <u>DSI 9571</u> REV. B	
CHECKED	<i>[Signature]</i>	SHEET 1 OF 2	
MFG. APPR.	<i>[Signature]</i>	TITLE <u>BOLT SUBSTITUTION</u> SCALE	
APPROVED	<i>[Signature]</i>	NTS	
DE APPR.	<i>[Signature]</i>	COPYRIGHT © 2011 BY DART AEROSPACE LTD	
DATE	<u>11.11.23</u>	THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

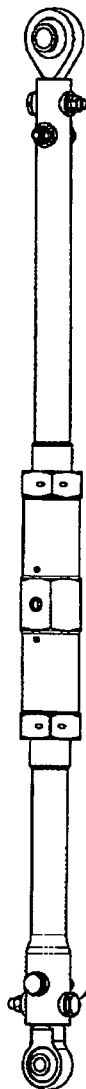
W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

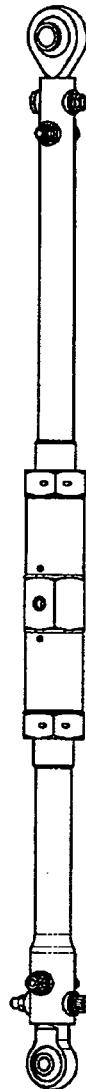
NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries



AN3C12A BOLT
D3692-1 SPACER, 2X
MS21043-3 NUT
2 PL

FIGURE 1 (WAS)



MS21250-03014 BOLT
D3692-1 SPACER, 2X
MS21042-3 NUT
2 PL

FIGURE 2 (IS)

81723

CANADA
DEPARTMENT OF TRANSPORT
AIRCRAFT CERTIFICATION
BRANCH
DAO # 01-O-01

APPROVED

BY: *[Signature]*
D. SHEPHERD (DE # 02)

DATE: 11.11.28
CERT. NO.: SH08-8
ISSUE NO.: 1

DESIGN	<i>[Signature]</i>	DART AEROSPACE LTD	
DRAWN	<i>[Signature]</i>	HAWKESBURY, ONTARIO, CANADA	
CHECKED	<i>[Signature]</i>	DRAWING NO.	REV. B
MFG. APPR.	<i>[Signature]</i>	DSI 9571	SHEET 2 OF 2
APPROVED	<i>[Signature]</i>	TITLE	SCALE
DE APPR.	<i>[Signature]</i>	BOLT SUBSTITUTION	NTS
DATE	11.11.23	COPYRIGHT © 2011 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

4. WEIGHT AND BALANCE

The following is the net weight increase associated with the D205-770-011 Kit.

Installation	Weight	LATERAL		LONGITUDINAL	
		Arm	Moment	Arm	Moment
D205-770-011	14.6 lb	-3.5 in	-51.1 in-lb	107.8 in	1574 in-lb
Replacement Engine Mount Kit	6.62 kg	-0.09 m	-0.6 m-kg	2.74 m	18.1 m-kg

5. PARTS LIST

Qty -011	Part Number	Description
X	D205-770-011	REPLACEMENT ENGINE MOUNT KIT
1	D3684-041	TRIPOD MOUNT ASSEMBLY
1	*D3684-043	MOUNT ASSEMBLY
8	**D3692-1	SPACER
4	**AN3C-12A	BOLT
4	**MS21043-3	NUT
1	**D3687-1	MOUNT
1	**D3684-047	FWD LEG ASSEMBLY
1	***D3688-1	STUD
1	***D3689-1	SLEEVE
1	***D3691-1	STUD
4	***D3692-1	SPACER
1	***D3693-1	ROD END BEARING
2	**AN3C-12A	BOLT
2	***MS21043-3	NUT
1	***NAS509-12C	NUT
1	***NAS509L-12C	NUT
1	**D3684-049	AFT LEG ASSEMBLY
1	***D3688-3	STUD
1	***D3689-1	SLEEVE
1	***D3691-1	STUD
4	***D3692-1	SPACER
1	***D3693-1	ROD END BEARING
2	**AN3C-12A	BOLT
2	***MS21043-3	NUT
1	***NAS509-12C	NUT
1	***NAS509L-12C	NUT
1	*D3684-045	INBOARD LEG ASSEMBLY
1	**D3688-5	STUD
1	**D3689-1	SLEEVE
1	**D3691-1	STUD
4	**D3692-1	SPACER
1	**D3693-1	ROD END BEARING
2	**AN3C-12A	BOLT
2	**MS21043-3	NUT
1	**NAS509-12C	NUT
1	**NAS509L-12C	NUT
4	**D3692-1	SPACER
2	*AN3C-12A	BOLT
2	*MS21043-3	NUT

continued next page...

continued from previous page...

Qty -011	Part Number	Description
1	D3685-041	BIPOD MOUNT ASSEMBLY
1	*D3687-3	MOUNT
1	*D3684-047	FWD LEG ASSEMBLY
1	**D3688-1	STUD
1	**D3689-1	SLEEVE
1	**D3691-1	STUD
4	**D3692-1	SPACER
1	**D3693-1	ROD END BEARING
2	**AN3C-12A	BOLT
2	**MS21043-3	NUT
1	**NAS509-12C	NUT
1	**NAS509L-12C	NUT
1	*D3684-049	AFT LEG ASSEMBLY
1	**D3688-3	STUD
1	**D3689-1	SLEEVE
1	**D3691-1	STUD
4	**D3692-1	SPACER
1	**D3693-1	ROD END BEARING
2	**AN3C-12A	BOLT
2	**MS21043-3	NUT
1	**NAS509-12C	NUT
1	**NAS509L-12C	NUT
8	*D3692-1	SPACER
4	*AN3C-12A	BOLT
4	*MS21043-3	NUT
1	D3686-041	MONOPOD ASSEMBLY
1	*D3688-7	STUD
1	*D3689-1	SLEEVE
1	*D3691-1	STUD
4	*D3692-1	SPACER
4	*D3692-3	SPACER
1	*D3693-1	ROD END BEARING
1	*D3693-3	ROD END BEARING
2	*AN3C-10A	BOLT
2	*AN3C-12A	BOLT
4	*MS21043-3	NUT
1	*NAS509-12C	NUT
1	*NAS509L-12C	NUT

(NOTE: PARTS IN BOLD TYPE CONSTITUTE PICK LIST FOR D205-770-011 KIT)

* PART IS INCLUDED WITH ASSEMBLY ABOVE

** PART IS INCLUDED WITH ASSEMBLY ABOVE

*** PART IS INCLUDED WITH ASSEMBLY ABOVE

DART SERVICE INSTRUCTION

TO AMEND INSTALLATION INSTRUCTIONS IIN-D205-770 REV. C
AND INSTRUCTIONS FOR CONTINUED AIRWORTHINESS ICA-D205-770 REV. 2

REF. TCCA STC: SH08-8
REF. FAA STC: SR02690NY / SR02070SE
REF. EASA STC: EASA.IM.R.S.01528

REFERENCE ONLY

1.0 PURPOSE

On D205-770-011 Replacement Engine Mount Kits at CHG 004 or later, the AN3C12A Bolts on the bottom of the D3686-041 Monopod Assembly are replaced with MS21250-03014 Bolts to prevent premature bolt failure in service. Customers with D205-770-011 Replacement Engine Mount Kits at CHG 003 or earlier are encouraged to procure the DSI 9571-011 Kit from Dart to upgrade their existing kits.

2.0 INSTALLATION

- 2.1 Temporarily suspend the weight of the engine using appropriate hoist and engine sling.
- 2.2 Unfasten qty(2) AN3C12A Bolts as shown in Figure 1 of this service instruction. Retain the D3692-1 Spacers and discard the AN3C12A Bolts and MS21043-3 Nuts.
- 2.3 Inspect the bearings for looseness in accordance with Section 5.1 of ICA-D205-770.
- 2.4 Install the MS21250-03014 Steel Tension Bolts, D3692-1 Spacers and MS21042-3 Nuts as shown in Figure 2 and ensure that the D3692-1 Spacers are correctly oriented along the face of the stud.
- 2.5 Torque bolts to 20 to 25 in-lbs (2.3 to 2.8 N-m).
- 2.6 Remove hoist and engine sling.

3.0 PARTS LIST

Qty -011	Part Number	Description
X	DSI 9571-011	BOLT SUBSTITUTION KIT
2	MS21042-3	NUT (OR MS21042L3)
2	MS21250-03014	STEEL TENSION BOLT

4.0 WEIGHT & BALANCE






This change has negligible effect on weight and balance

CANADA
DEPARTMENT OF TRANSPORT
AIRCRAFT CERTIFICATION
BRANCH
DAO # 01-O-01

APPROVED

BY: 
D. SHEPHERD (DE # 02)

DATE: 11.11.28
CERT. NO.: SH08-8
ISSUE NO.: 1

B	PRODUCT IMPROVEMENT: PERMANENT CHANGE. (REF. NCR11-754)	MB	11.11.23
A	NEW ISSUE	MB	11.09.06
REV.	DESCRIPTION	BY	DATE
DESIGN		DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN		DRAWING NO.	REV. B
CHECKED		DSI 9571	SHEET 1 OF 2
MFG. APPR.	N/A	TITLE	SCALE
APPROVED		BOLT SUBSTITUTION	NTS
DE APPR.		COPYRIGHT © 2011 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	
DATE	11.11.23		